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7590 10742010 CRAIN, CATON & JAMES FIVE HOUSTON CENTER 1401 MCKINNEY, 17TH FLOOR HOUSTON, TX 77010		EXAMINER		
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# Please find below and/or attached an Office communication concerning this application or proceeding.

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6	BEFORE THE BOARD OF PATENT APPEALS
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10	Ex parte YIN L. CHEUNG, MICHAEL J. ZEITLIN,
11	and MARK ACOSTA
12	and minimize the contract
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14	Appeal 2009-013338
15	Application 10/806,980
16	Technology Center 2600
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19	Oral Hearing Held: July 14, 2010
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22	Before KENNETH W. HAIRSTON, MAHSHID D. SAADAT, and
23	BRADLEY W. BAUMEISTER, Administrative Patent Judges.
24	,
25	
26	APPEARANCES:
27	
28	ON BEHALF OF THE APPELLANT:
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- The above-entitled matter came on for hearing on Wednesday, July
- 2 14, 2010, commencing at 9:05 a.m., at the U.S. Patent and Trademark
- 3 Office, 600 Dulany Street, Alexandria, Virginia, before Janice Salas, Notary
- 4 Public.
- 5 THE CLERK: Calendar number 7, appeal number 2009-013338,
- 6 Mr. Jensen.
- 7 JUDGE HAIRSTON: Thank you.
- 8 Good morning, Mr. Jensen.
- 9 MR. JENSEN: Good morning.
- 10 JUDGE HAIRSTON: Do you have your business card --
- 11 MR. JENSEN: Yes, sir.
- 12 JUDGE HAIRSTON: -- for the record.
- 13 Spell your name for the record correctly.
- 14 MR. JENSEN: William Jensen.
- 15 JUDGE HAIRSTON: No. I mean, your business card, if you have it, so she
- 16 can make sure get it correct.
- 17 MR. JENSEN: There you go.
- 18 JUDGE HAIRSTON: Thank you.
- 19 MR. JENSEN: Again, my name is Bill Jensen. I'm representing the
- 20 Applicants this morning. I'm from the firm of Crain, Caton, and
- 21 James in Houston, Texas.
- 22 Before I begin, I've got a presentation that sort of summarizes our arguments
- 23 that I think will help in understanding of the invention and the prior art
- 24 better since it's a lot -- mostly related to the visual arts. My concern is I've
- 25 taken a trial run or two, and I think it takes about 20 minutes with the

- anticipated questions. I might run over, and I understand we have to ask for
- 2 time -- extra time up-front.
- 3 JUDGE HAIRSTON: Okay. That's fine. Go ahead.
- 4 MR, JENSEN: I think the most logical starting point is with the interview
- 5 that was conducted on May 25th where an agreement was
- 6 reached with the examiner concerning some amendments to clarify --
- 7 JUDGE HAIRSTON: May 25th of this year?
- 8 MR. JENSEN: May 25th of 2007.
- 9 JUDGE HAIRSTON: Oh, okay. We have a rocket docket here.
- 10 MR. JENSEN: I understand. I'm familiar. This is a copy of the interview
- 11 summary. The agreement that was reached is pertaining to the clarification
- 12 of real time. The Examiner made some suggestion -- proposed some
- 13 suggested language, as you see here, for sufficiently fast to be perceived in
- 14 real time as the three-D probe is moved or substantially at the same time as
- 15 the three-D sampling probe is moved.
- 16 The claims were being rejected over a reference called Holden, which is a
- 17 user manual for some software called VoxelGeo in the market.
- 18 JUDGE HAIRSTON: Does your spec make clear what's sub -- what are the
- 19 parameters of substantially? How much time is involved,
- 20 substantially at the same time?
- 21 MR. JENSEN: Well, the description basically says that it -- it ties it into
- 22 interactive, meaning that it's being visualized or rendered at the same time as
- 23 it's being moved, so it all really boils back down to the real time reference
- 24 that the Examiner's pointed to here in the agreement that was reached.
- 25 JUDGE HAIRSTON: Okay.

- 1 MR. JENSEN: The Examiner had represented that the rejections be
- 2 withdrawn and the claims allowed if there was no other reference for the
- 3 related references that were found after a search was conducted. The next
- 4 event -- well, the next event that took place is we amended the claims
- 5 exactly as the Examiner suggested, as you can see by the -- this is an
- 6 exemplary claim wherein the amendments were entered.
- 7 The underlining represents the proposed language by the Examiner to
- 8 provide clarification of the operation of the sampling probe, and this, again,
- 9 is an exemplary claim where claim 1 includes this limitation and claim 27 is
- an alternative of that showing sufficiently fast to be perceived in real time as
- 11 the three-D sampling probe is moved.
- 12 Backing up to the first step, what's happening here is that the sampling probe
- in the first step is created and the sampling probe is a subset or a subvolume
- 14 of a larger three-D volume data set.
- 15 The three-D volume data set will typically represent seismic data that may
- 16 comprise a set of voxels, which are data points representing a point of data, a
- 17 fixed point, with X, Y, Z coordinates and a data value.
- 18 So what happens is the seismic data is typically shot into the earth. The
- 19 reflection bounces back, and the reflection is measured, for example, in
- $20\,$   $\,$  terms of the amplitude. The amplitude is represented as a voxel at that
- 21 particular point of reflection, and the data value represents the strength of the
- 22 amplitude reflection, which is a range of data values from zero to 256, for
- 23 example, and the data value can be represented as a color corresponding to
- 24 the amplitude and the strength of the reflection.
- 25 The next step that's performed is the drawing of the image of the three-D
- 26 sampling probe. The image is basically an intersection of the probe and the

- larger three-D volume data set. The drawing, as the description refers to, is
- 2 typically done by either texture mapping the intersection of the seismic data
- 3 on the surfaces, the visible surfaces of the sampling probe, or the volume
- 4 rendering it where it's rendered both on the surfaces and throughout the
- 5 interior of the sampling probe.
- 6 And then I think what's at the heart of the disagreement with the Examiner is
- 7 the next step, the repeating the drawing step responsive to movement of the
- 8 three-D sampling probe within the three-D volume, so that as the three-D
- 9 sampling probe moves through the volume, the image of the sampling probe
- 10 is redrawn in one of these two manners.
- 11 So basically what's happening is that when you have the sampling probe
- 12 drawn with that intersection and you want to move it to another point in the
- 13 three-D volume, then the user is enabled to see the data changing on those
- 14 surfaces of the sampling probe as it's being moved from one point in the
- 15 volume to another point.
- 16 So, for example, if the user wanted to track a fault that's represented by the
- 17 seismic data, and the user is typically referred to as an interpreter of the
- 18 seismic data, the user positions the sampling probe in an area where he
- 19 thinks that the fault occurs and then he intuitively can move the sampling
- 20 probe through that larger data set, tracking the fault in real time to see
- 21 exactly where the parameters are on that fault.
- 22 This is a significant advancement over the technology at this time, as I'll get
- 23 into later when we compare it to the Holden reference. The next event that
- 24 took place, rather surprising I guess, is that the Examiner rejected in a final
- 25 rejection claims after we amended them exactly as he had suggested.

- 1 JUDGE HAIRSTON: So he didn't suggest that -- to clarify, you thought he
- 2 was suggesting it to get it allowed as opposed to he maybe needed the
- 3 clarification --
- 4 MR. JENSEN: The Examiner said that if these amendments are entered.
- 5 then he would withdraw the rejections and allow the claims if there wasn't a
- 6 further search that yielded any other related reference. Well, there was no
- 7 other related reference. It was the same reference that we amended to
- 8 overcome.
- 9 JUDGE HAIRSTON: Okay. He changed his mind.
- 10 MR. JENSEN: Exactly. I'm not sure why, but that's what happened.
- 11 JUDGE HAIRSTON: Okay.
- 12 MR, JENSEN: The Examiner's final rejection -- you don't see it here. You
- 13 see sort of the overflow from page 2, but he still concedes that the Holden
- 14 reference does not teach the limitations that were added by amendment. He
- 15 takes the rest of page 3 to argue that his understanding suggests that those
- 16 missing limitations for Holden are rendered obvious through some
- 17 interpretation of Holden, which we argue is a misinterpretation.
- 18 His analysis not only misinterprets Holden, but, in our opinion, overlooks
- 19 the teachings away of Holden from the claimed invention. It also fails to
- 20 provide an explicit analysis in support of the legal conclusions, which are
- 21 necessary to require an understanding of the level of ordinary skill in the art.
- 22 The Examiner also never went into any analysis of the grant factors that
- 23 include significantly the level of ordinary skill in the art, which would be, in
- 24 our opinion, quite necessary to uphold any kind of analysis that you see on
- 25 page 3 to suggest that the missing limitations are somehow suggested or
- 26 motivated to be filled in with this Holden reference.

- 1 The Examiner then -- of the two pages in Holden that the Examiner relies on
- 2 in the final rejection, he refers to language on page 6-4 -- and stop me if
- 3 you'd like to see any of these references because I can move to the laptop
- 4 and it's hyperlinked and I can show you what's on 6-4, but as quoted, he's
- 5 relying on this language: More complex volumes require more time to
- 6 render, which the reference does state, but it concludes without
- 7 any further analysis or reasoning or support that this is obvious due to
- 8 reduction of processed data.
- 9 Now, the Examiner never explains the level of knowledge possessed by one
- 10 having ordinary skill in the art and why that person would arrive at the
- 11 claimed invention just because a reduction of processed data might lead to
- 12 improved processing time.
- 13 And again, this is a necessary component, in our opinion, to be able to
- understand what that person of ordinary skill in the art at the time of the
- 15 invention would have understood and perceived in terms of what a reduction
- 16 in processed data means, and the Examiner's argument is almost akin to
- 17 saying superconductors aren't patentable simply because reducing resistance
- 18 leads to improved conductivity.
- 19 Notably, our claims didn't claim improved or faster processing. They
- 20 claimed a specific operation of the sampling probe to enable it to be redrawn
- 21 as it's being moved. Now, the section that the Examiner refers to is called
- 22 Tumbleview in chapter 6, and as it's described as a fixed volume in space
- 23 that allows the viewpoint or perspective of the user to change with respect to
- 24 the same volume.
- 25 There's nothing that's being redrawn, much less in response to movement of
- 26 the sampling probe, through the three-D volume from point to point. In

- 1 other words, the description talks about a whole data set, not a subset of that,
- 2 in most parts in allowing the viewer's perspective to be changed with respect
- 3 to the same data set or the same volume of date.
- 4 Now, it does reference in some parts subsetting that into a subvolume, but,
- 5 again, the user is looking at the same subvolume, and it's not being redrawn
- 6 as it's being moved because the user's looking at different perspectives of the
- 7 same data set, so even if the same volume were rotated instead of changing
- 8 the perspective of the user, it wouldn't be redrawn as claimed. It would still
- 9 be looking at the same data set as it's being rotated in the three-D volume.
- What happens, then, is if you try and convert that into what the limitations
- 11 require, then you would not be looking at a different perspective of the same
- 12 data set. You'd be looking at each rotation -- and it's described as tumbling,
- which means rotating along a particular X, Y, or Z axis.
- 14 So if you were to change the data set as it moves or rotates around that axis,
- 15 you'd never see the same data set from a different viewpoint, which is
- 16 required, and that's why trying to change this feature of Tumbleview
- 17 into what the claims require would render it inoperable or unsatisfactory for
- 18 view -- for viewing different perspectives of the same volume.
- 19 JUDGE SAADAT: Counsel, I have a question.
- 20 MR. JENSEN: Yes, Your Honor.
- 21 JUDGE SAADAT: In the repeating step of claim 1, how the data set
- 22 changes as you're suggesting that --
- 23 MR. JENSEN: That's a good question.
- 24 It's hard to perceive without actually having a sample of the software up and
- 25 running, but I'll try and explain it. There's a large data set of three-D data,

- 1 typically seismic data. It's subsetted as -- well, it's subsetted by use of the
- 2 sampling probe.
- 3 So when the sampling probe enters this three-D volume, the intersection of
- 4 the sampling probe visible planar surfaces show the seismic data from that
- 5 three-D volume just on those planar surfaces.
- 6 When you move the sampling probe from one position to the other, then the
- 7 data in the three-D volume doesn't change. It's the data that appears on the
- 8 sampling probe that changes.
- 9 JUDGE SAADAT: It's like getting different cross sections.
- 10 MR. JENSEN: Exactly.
- 11 JUDGE SAADAT: So that's what you're referring to as a new data set when
- 12 the sampling probe --
- 13 MR. JENSEN: Well, by operation -- by operation of our invention, yes,
- 14 that's what's happening when you move the sampling probe from one
- 15 position or location to another. You have new intersections of the sampling
- 16 probe within that larger three-D volume data set.
- 17 Does that address your question?
- 18 JUDGE SAADAT: It does, but I'm not sure what part of the claim defines
- 19 that data set versus the data set that changes.
- 20 MR. JENSEN: Well, if you go back to the claim, this is -- where it's drawn
- 21 as an image it shows -- it's comprising an intersection of the three-D
- 22 sampling probe and the three-D volume. As it's being moved in this step,
- 23 the drawing step is repeated.
- 24 The movement of the sampling probe from one position to the other is going
- 25 to place it at a point where the intersection is going to be different than it
- 26 was before, so by -- inherently, you're going to have different data

- 1 intersecting the sampling probe from the three-D volume simply by moving
- 2 it from one position or location to another.
- 3 JUDGE SAADAT: So that's the -- the three-D -- the redrawn image of the
- 4 sampling probe is the new data set that changes --
- 5 MR. JENSEN: Correct.
- 6 JUDGE SAADAT: -- all the time.
- 7 MR, JENSEN: Exactly. Well, it's not a new data set in terms of what the
- 8 three-D volume represents, but it's different in new data compared to where
- 9 the sampling probe was before.
- 10 JUDGE SAADAT: As far as the drawing goes.
- 11 MR. JENSEN: The intersection, right. Exactly.
- 12 The next section that the -- or chapter in Holden that the Examiner relies on
- 13 describes GeoSeed on page 8-16. The Examiner erroneously concludes that
- 14 the claimed sampling probe is equivalent to GeoSeed. In rejecting claim 16
- 15 in the final office action on page 7, the Examiner admits that a voxel is
- 16 equivalent to a seed point, which is equivalent to GeoSeed.
- 17 And that's correct. The Examiner, I don't know how, but misinterprets what
- 18 the voxel in GeoSeed is doing. It's permitting selecting a seed voxel within
- 19 a feature of interest and detects other voxels that are adjacent to the seed
- 20 voxel or any other detected voxel, and then it includes anything that falls
- 21 within a user-defined range of voxel values.
- 22 So contrary to the Examiner, the GeoSeed isn't equivalent to the claimed
- 23 sampling probe, which is a subvolume. The Examiner also concludes that
- 24 since Holden's disclosure of movement of GeoSeed is always associated
- 25 with input from a user, drawing is always associated with providing

- 1 perception to a user and concurrency is always described as sufficiently fast
- 2 to be perceived as real time, the redrawing steps are equivalent.
- 3 I have to admit I had to read that probably about 10 times before I could
- 4 fully appreciate or try and appreciate what it is the Examiner's getting at, and
- 5 nowhere in GeoSeed did I see any reference to concurrency, sufficiently fast,
- 6 or real time.
- 7 Notably, there's no -- there's no specific analysis or reasoning that supports
- 8 this sort of string of conclusions that the Examiner presents, and one of the
- 9 things that's significant that's threaded throughout this entire history of
- 10 prosecution is that the Examiner in these legal conclusions never provides a
- 11 sufficient or adequate analysis to support them.
- 12 In KSR, they quote Kahn, a federal circuit case, that rejections on
- 13 obviousness grounds cannot be sustained by mere conclusory statements.
- 14 Instead, there must be some articulated reasoning with some rational
- 15 underpinning to support the legal conclusion of obviousness.
- 16 And here I think it's clear that he hasn't met that standard, and even giving
- 17 the Examiner the benefit of the doubt, GeoSeed teaches away from the
- 18 claimed invention, so even if you were to convert somehow this fixed point
- 19 representing the voxel into a sampling probe, which is a subvolume, the
- 20 purpose of GeoSeed would be rendered inoperable simply because the
- 21 GeoSeed detection algorithm takes these -- a seed point.
- 22 If I give you an example, the interpreter would take a seed point, say, for
- 23 example, that lies on a fault represented by the seismic data, and that
- 24 interpreter wants to see where that fault propagates throughout the larger
- 25 three-D data set.

- 1 So he takes that seed. He knows where it is -- he knows that seed lies within
- 2 a fault, so he knows that now, using this GeoSeed detection algorithm, that
- 3 mostly likely, when he engages it, he's going to find other voxels that are
- 4 connected to that one representing the fault, and he can then kind of interpret
- 5 where the fault path flows.
- 6 So now, taking GeoSeed and trying to then morph it into a sampling probe
- 7 that moves throughout the three-D volume would render it inoperable. I
- 8 mean, you -- what GeoSeed detection algorithm relies on is the fact that
- 9 you've got these fixed points that don't move. If you moved a voxel from
- 10 one point to another, we'd never then represent the reflection of that seismic
- sound reflecting off it at that particular point with that particular data value.
- 12 The Examiner then moves on in his answer to a chapter that pertains to
- 13 editing the volume.
- 14 The -- this particular chapter teaches that the image of the subvolume is
- 15 redrawn in the rendering window after it is moved, not as it's moved. And I
- don't know if the Board has a copy of 9-22 at hand.
- 17 If it doesn't, I can pull it up on the screen for you.
- 18 JUDGE HAIRSTON: We have it.
- 19 MR. JENSEN: So as you see, looking at --
- 20 I'm sorry. 9-21. I think 9-21. The description as its operation is on 9-22, but
- 21 9-21 shows you the user interface. You've got two slider bars. The user
- 22 selects an axis that they want to edit along, X, Y, or Z. The slider bar
- 23 basically edits the volume in that right window, and it -- one slider
- 24 will edit it from one side of the plane.
- 25 The other slider edits from the other side of the plane, and through this
- 26 process, an interpreter or user can then edit the size of that subvolume within

- 1 the larger three-D volume data set. Significantly, though, that editing
- doesn't occur in the rendering window, which is the left window, until the
- 3 slider bars are released.
- 4 Now, if you were to take that subvolume and move it from one point in that
- 5 three-D data set to another point, you'd have to edit each one of those planar
- 6 surfaces along the X, Y, and Z axis using the slider bars, and you'd have to
- 7 move it from one point to another.
- 8 So that basically you would take one plane that shows in the right window,
- 9 move it to that other position, size it, take another plane, move it to that, size
- 10 it, and then the final axis, move it to that plane, and size it, and then you'd
- 11 have a new, basically, subvolume at a different location in the three-D data
- 12 set showing the intersection.
- 13 The Examiner never explains or supports why redrawing the Holden
- 14 subvolume in this manner in the rendering window, which is the left
- 15 window, after it's moved is equivalent to rendering the claimed sampling
- probe as it is moved, and contrary to the Examiner's answer on page 11,
- 17 Applicants never concurred that the claim phrase -- the three-D sampling
- 18 probe moves through the three-D volume -- is a change in the shape, size, or
- 19 location of the three-D probe within the three-D volume.
- 20 The Appellant's Brief on page 18 refers to paragraph 52 of the application
- 21 which describes a change in the shape, size, or location of the sampling
- 22 probe within the three-D volume. So movement of the subvolume within the
- 23 three-D volume is not the same as movement of the sampling probe through
- 24 the three-D volume to another location.
- 25 These are different limitations in the same claim that further distinguish the
- 26 Holden editing features in chapter 9 from the claimed invention.

- 1 There are other dependent claims that I think the Examiner overlooked that
- 2 discuss reshaping the sampling probe, like in claim 2, or reorienting the
- 3 sampling probe, like in claim 5, and the distinction is further highlighted by
- 4 the description. These steps -- these are additional steps in the dependent
- 5 claims apart from the movement through the three-D volume, which is from
- 6 location to location.
- 7 The significant disadvantage here from Holden's operation is that if you take
- 8 Holden and you want to move it from point A to point B in the three-D
- 9 volume and then back to point A, all that the interpreter is going to see is
- with the intersection at point A and point B and then back at point A.
- 11 There's never going to be any intuitive response to see what's going on
- between points A and B and back between B and A.
- 13 With the claimed invention, the user intuitively sees everything that
- 14 happens, as the probe, sampling probe, is being redrawn between points A
- 15 and B and then back between B to A, so if there was a fault, for example,
- 16 that the interpreter was trying to track using Holden's subvolume in this
- 17 chapter, he would have to know basically through an educated guess that it
- 18 starts here.
- 19 Then he would have to make another guess that maybe it moves over here,
- 20 and then if that's wrong, he has to guess again and keep doing this through
- 21 the process of elimination to find exactly where the path of that fault
- 22 propagates through the three-D volume data set.
- 23 With the claimed invention, the user simply moves it in the direction that
- 24 they think, and if it's not in one direction, they can immediately move to
- another direction and see the data change and pick up a fault intuitively
- 26 along that path that it propagates.

- 1 The other advantage is that the user might pick up on another feature of
- 2 interest, for example, a salt bill (phonetic), that might intersect that fault and
- 3 just perchance using Holden's technique, might stumble on it just by
- 4 guessing at point B that there's some other feature of interest.
- 5 So this invention is a significant improvement over the prior art because it
- 6 really enables an efficient -- an increased -- significantly increased
- 7 efficiency level of using a subvolume to track features of interest in real time
- 8 through the three-D data set and provide intuitive responses to an interpreter.
- 9 The Examiner then falls back on chapter 5, which I think is probably the
- 10 furthest removed from what's going on with the claimed invention.
- 11 This chapter describes parameter settings. The parameters that it refers to
- 12 are described as opacity, contrast, or color, for example.
- Now, in our application, we also talk about these, but not necessarily in
- 14 terms of parameters, but as, I think, attributes or characteristics.
- 15 So back to the data value that the voxel includes, for example, amplitude.
- 16 This data value of amplitude will have, depending on the reflection strength,
- 17 some range of values between zero and maybe 256. The representation of
- 18 that change compared to a voxel, say, sitting next to it with a different
- 19 reflection magnitude is represented in a number of ways. One of them could
- 20 be the color.
- 21 So you might have a change in color depending on the magnitude of the data
- 22 value or a change in contrast or opacity. So these are things that are related
- 23 to the seismic data, but they're not necessarily -- well, they're not anywhere
- 24 equivalent to a sampling probe. So the adjusting of these parameters simply
- 25 don't or aren't equivalent to the sampling probe and how it moves throughout
- 26 this three-D volume data set.

- 1 The adjusting of the rendering parameters is also subject to the same
- 2 limitations or restrictions as the editing feature that we talked about with
- 3 respect to chapter 9. So if you look at page 5-9 of Holden, I think depicts a
- 4 representation of the parameter editing features.
- 5 And there's also a slider bar and there's also a window for the numerical
- 6 value.
- 7 So you can take the slider bar, move it, and see the numerical value of the --
- 8 of the data value changing for that parameter between zero and say 256.
- 9 And then when you let go of the slider bar -- this is the same as chapter 9 --
- 10 then it renders the changed parameter, but, again, the significant difference
- 11 is their parameter isn't a sampling probe.
- 12 And the Holden reference -- the Examiner goes into this double buffer
- 13 feature which is simply taking the rendering step, the drawing, and doing it
- 14 all at once in the
- 15 background, so that then when you move or adjust the parameter by moving
- 16 the slider bar, you can see that changing as you move it, but there's no
- 17 redrawing.
- 18 The drawing step has already been done in the background all at once before
- 19 you move the slider bar so that it's -- and I think it's described in chapter 5 as
- 20 sort of an animation technique, so all of the rendering of the drawing has to
- 21 be done in the background before you go through and try and analyze the
- 22 data used in this adjustment.
- 23 JUDGE SAADAT: Okay. Another question. If the sliding bar is not
- 24 touched, what would be rendered?
- 25 MR. JENSEN: Nothing. There's no activity in either this chapter 5 or
- 26 chapter 9 editing the subvolume unless you move the slider bar. I mean, I

- guess there's a default that probably pulls up the subvolume at a
- 2 predetermined location within the three-D volume and you see that.
- 3 JUDGE SAADAT: So a slide bar has a range, let's say zero to 50.
- 4 MR. JENSEN: Right.
- 5 JUDGE SAADAT: Or the number you mentioned. At zero -- that's a
- 6 setting -- what would be displayed?
- 7 MR. JENSEN: Well, are you talking about this chapter or chapter 9?
- 8 JUDGE SAADAT: Chapter 9.
- 9 MR. JENSEN: Chapter 9.
- 10 JUDGE SAADAT: Yes.
- 11 MR. JENSEN: Okay. Well, the slider bar, if you recall, in chapter 9 adjusts
- 12 the sides of the plane in either the X, Y, or Z axis. So if one slider is set to
- 13 zero, I suspect that's going to represent one extreme of the plane.
- 14 JUDGE SAADAT: Right. So some type of cross section would be
- 15 displayed, so I'm not convinced that the sliding bar is really relevant to
- 16 displaying some image that is selected based on the sampling probe.
- 17 MR. JENSEN: Well, I --
- 18 JUDGE SAADAT: It just adjusts the way that that image could be modified
- 19 or a particular aspect of it.
- 20 MR. JENSEN: Well, that's -- that's our position. Somehow the Examiner
- 21 has gotten caught up that that's somehow equivalent or suggests moving the
- 22 subvolume from one location to another and showing the intersection
- 23 changes as it's being moved from one location to another, but that's not
- 24 what's happening with the movement of the slider bar in chapter 9, as I think
- 25 that you've just suggested.

- 1 It's an editing feature that, for primary purposes, resizes the subvolume, but
- 2 it could be used to move it from one location to another, but, like I said or
- 3 described earlier, you would have to -- you would have to take the slider bar,
- 4 pick an axis, choose the size of the subvolume in the new location, and then
- 5 go through that process iteratively through the three planes.
- 6 And it's not going to even render until you're through with that whole
- 7 process, so you'll never see what's happening in between that first location
- 8 and the next location. Does that help?
- 9 JUDGE SAADAT: It does. And also, why claim 1 doesn't have the term
- 10 real time? What's the difference? There is a difference. I'd like to know
- 11 your explanation.
- 12 MR, JENSEN: If I may go back to the exemplary claim.
- Well, the thinking at the time was to follow what the Examiner's suggestion
- was. He made the proposal of these two alternatives because their different
- 15 sets of claims include one limitation or the other as you see highlighted.
- 16 And aside from thinking that we had an agreement that would satisfy the
- 17 Examiner and we would overcome this reference, I think all I can say for the
- 18 record is that they include different -- different degrees of being able to see
- 19 the sampling probe move through the three-D volume.
- 20 One may not be exactly in real time, but is being redrawn as its being
- 21 moved. So I think the common denominator is that it's being redrawn as its
- 22 being moved.
- 23 Are there any further questions?
- 24 JUDGE HAIRSTON: Any other questions?
- 25 JUDGE SAADAT: I don't have any.

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MR. JENSEN: In conclusion, the Examiner admits that Holden doesn't 1 2 teach the limitations that were added during the agreement. Tumbleview 3 and the GeoSeed features not only fail to provide the motivation to modify Holden, but they also teach away from the limitations, and the rest of Holden 4 5 relied on by the examiner is neither equivalent to those limitations nor 6 sufficient to prove the obviousness by a preponderance of the evidence. 7 The Applicants respectfully request that you reverse the Examiner's rejection 8 of claims 1 through 52. 9 JUDGE HAIRSTON: Okay. Thank you, counsel. 10 Whereupon, the proceedings at 9:39 a.m. were concluded. 11 12